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(74) Agent: **VAN WESTENBRUGGE, Andries et al.**; Ned-
erlandsch Octrooibureau, Scheveningseweg 82, P.O. Box
29720, NL-2502 LS The Hague (NL).

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(71) Applicant (*for all designated States except US*): **PAN-
TARHEI BIOSCIENCE B.V.** [NL/NL]; Boslaan 13,
NL-3701 CH Zeist (NL).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **VAN DER LIN-
DEN, René, Frank** [NL/NL]; Amersfoortseweg 4,
NL-3951 LB Maarn (NL). **COELINGH BENNINK,
Herman, Jan, Tijmen** [NL/NL]; Melvill van Cambeelaan
38, NL-3971 BE Driebergen (NL).

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ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: **USE OF A SRI AND VITAMIN B6 FOR THE TREATMENT OF NEUROLOGICAL AND MENTAL DISORDERS**

(57) Abstract: The present invention is concerned with a method of treating neurological and/or mental disorders that are associated with, or pathogenetically related to deficient serotonin neurotransmission. More particularly the invention relates to a method of treating depressive disorders, anxiety disorders, post-traumatic stress syndrome or premenstrual syndrome, said method comprising the administration of serotonin re-uptake inhibitor (SRI) in a daily amount of at least 0.4 mg, wherein a vitamin B6 component is co-administered in a daily amount of between 0.01 and 10 mmoles to improve the responder rate or to advance the onset of action of the treatment with SRI, and wherein the method does not include the application to the brain of an AC pulsed magnetic field of at least 7.5 picotesia flux density for at least 15 minutes. The invention also encompasses pharmaceutical formulations containing SRI and vitamin B6 component and comprising a dosage unit that provides a sustained release of the vitamin B6 component.



WO 2004/022043 A1

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/137 A61K31/138 A61K31/343 A61K31/357 A61K31/495
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 596 807 A (CROSBY MARTIN G) 24 June 1986 (1986-06-24) cited in the application * col 3, 9-21, 31-54; col 8, lines 19-26, example 3; claims *	1-17
X	US 2002/072537 A1 (HINZ MARTIN C) 13 June 2002 (2002-06-13) cited in the application * paragraphs 28, 38, 40, 41, 49; claims 5, 8, 13, 16, 23-25 *	1-17
A	US 5 885 976 A (SANDYK REUVEN) 23 March 1999 (1999-03-23) cited in the application * col 1, lines 18-37; col 11, lines 18-33; col 12, lines 52-65; col 13, lines 29-32 *	1-17
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☒ Further documents are listed in the continuation of box C.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

Büttner, U

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	EP 1 266 659 A (PANTARHEI BIOSCIENCE B V) 18 December 2002 (2002-12-18) * claim 7 *	13-17
X	CLINICAL CAREGROUP: "Selective serotonin reuptake inhibitors (SSRI)" ONLINE, XP002178577 Retrieved from the Internet: <URL:clinical.caregroup.org/a...actions/Dr ug_Classes/SSRI's.htm> 'retrieved on 2001-09-21! * pages 1-2 *	1-17
A	ERIKSSON E ET AL: "DIAGNOSIS AND TREATMENT OF PREMENSTRUAL DYSPHORIA" JOURNAL OF CLINICAL PSYCHIATRY, XX, XX, vol. 63, no. SUPPL 7, 2002, pages 16-23, XP008006875 ISSN: 0160-6689 * page 19, last paragraph *	1

INTERNATIONAL SEARCH REPORT

PCT/NL 03/00622

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4596807	A	24-06-1986	AT	113837 T	15-11-1994
			AU	586859 B2	27-07-1989
			AU	5621586 A	23-10-1986
			CA	1262095 A1	03-10-1989
			DE	3650138 D1	15-12-1994
			DK	551586 A	18-11-1986
			EP	0222782 A1	27-05-1987
			ES	8800045 A1	01-01-1988
			GR	860762 A1	21-07-1986
			NO	864762 A	26-11-1986
			PT	82268 A , B	01-04-1986
			WO	8605684 A1	09-10-1986
			US	4698342 A	06-10-1987
			JP	62502798 T	12-11-1987
<hr/>					
US 2002072537	A1	13-06-2002	US	6403657 B1	11-06-2002
			US	2002040054 A1	04-04-2002
			US	2002025972 A1	28-02-2002
			US	2002065311 A1	30-05-2002
			US	2002094969 A1	18-07-2002
<hr/>					
US 5885976	A	23-03-1999	US	5691324 A	25-11-1997
			WO	9913884 A1	25-03-1999
			AU	4486797 A	05-04-1999
			US	5470846 A	28-11-1995
			US	5691325 A	25-11-1997
<hr/>					
EP 1266659	A	18-12-2002	EP	1266659 A1	18-12-2002
			WO	02100404 A2	19-12-2002
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